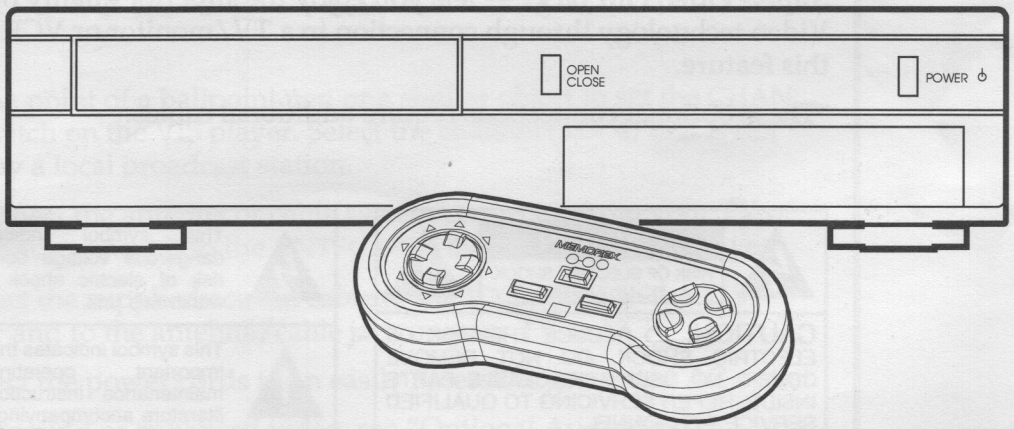
Owner's Manual

MD 2500
Video Information System



MEMOREX®

Cat. No. 16-376

Features

With the Memorex MD 2500 Video Information System (VIS), everyone can enjoy the excitement of interactive multimedia experiences. Hand controller operation makes the VIS easy to use, and VIS CDs offer educational, entertaining, and informative applications for all ages.

Special features include the following:

Save-It Cartridge — used by some applications to save settings for later use by that application.

Audio CD Play Program — automatically plays an audio CD. A special screen gives you several play options, such as shuffle play. You can even save your play preferences for each CD on a Save-It cartridge.

Title Sampler — shows you a sampling of available VIS CDs.

Supplied Coaxial Cable — allows quick connection to any TV.

Stereo Out Jacks* — provide stereo sound through connection to a stereo TV, a stereo system, amplified speakers, or any other amplifier/receiver.

Video Out Jack* — supports enhanced video through connection to a TV/monitor or VCR that has separate audio/video connections.

Super-Video Out Jack* — lets you enjoy the superior quality of Super-Video technology through connection to a TV/monitor or VCR that has this feature.

*These optional connections require additional cables.

CAUTION

RISK OF ELECTRIC SHOCK. DO NOT OPEN !

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.

This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

WARNING: TO AVOID THE HAZARDS OF FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THIS UNIT TO RAIN OR OTHER MOISTURE.

Copyright © 1992 Tandy Corporation. All Rights Reserved.

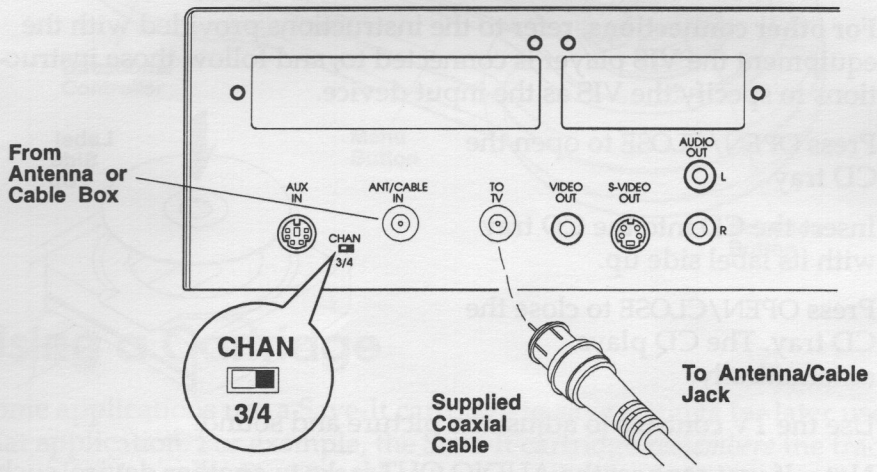
Operating System (Modular Windows): Copyright © 1992 Microsoft Corporation. All Rights Reserved.
BIOS ROM: Copyright © 1992 Phoenix Technologies Ltd. All Rights Reserved.

Memorex is a registered trademark of, and is used under license from, Memorex Telex N.V.
Microsoft is a registered trademark of Microsoft Corporation.
Radio Shack is a registered trademark used by Tandy Corporation.
Tandy is a registered trademark of Tandy Corporation.
Modular Windows is a trademark of Microsoft Corporation.
Save-It, Video Information System, and the VIS logo are trademarks of Tandy Corporation.

Quick Connection

Warning: Before you make the connections, be sure the VIS player and TV (and VCR, if applicable) are turned off and disconnected from power.

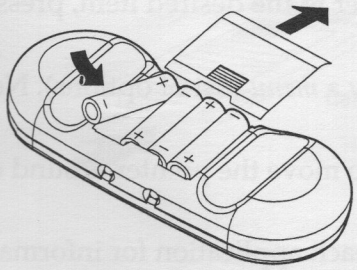
You can use the supplied coaxial cable to quickly connect the VIS player to your TV. If your TV is currently connected to your VCR, use the supplied cable to connect the VIS player to your VCR. Follow these steps to connect the VIS player to your TV or VCR:



1. Use the point of a ballpoint pen or a similar object to set the CHAN 3/4 switch on the VIS player. Select the channel (3 or 4) that is not used by a local broadcast station.
2. Disconnect the antenna or cable system connector from your TV or VCR, and connect it to the ANT/CABLE IN jack on the VIS player.
3. Connect the supplied coaxial cable to the TO TV jack on the VIS player and to the antenna/cable jack on your TV or VCR.
4. Connect the power cords to an easily accessible grounded AC outlet.

For stereo sound or enhanced video, see "Optional Audio/Video Connections."

Installing Batteries in the Controller



The supplied wireless hand controller requires four AAA batteries. For best performance, we recommend alkaline batteries, such as Radio Shack Cat. No. 23-552. To install the batteries, slide off the battery cover and insert the batteries as shown. Be sure the polarity is correct, as indicated by the + and – signs inside the battery compartment. Then, slide the battery cover back into place.

Note:

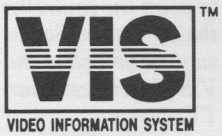
The sensor for the wireless hand controller is on the front of the VIS player, but people tend to point the controller at the TV screen. So, we suggest you place the VIS player near your TV.

Caution:

Use only batteries of the recommended size and type. Dispose of used batteries according to the manufacturer's instructions.

Note:

Look for CDs with this logo:



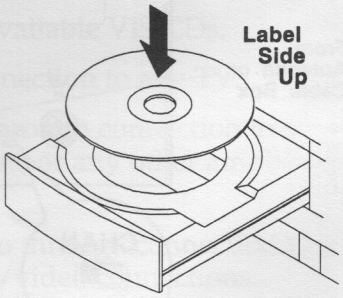
or audio CDs with either of these logos:

Basic Operation

Follow these steps to play a VIS CD or an audio CD:

1. Press POWER to turn on the VIS player. The power indicator lights. Also, turn on your TV and any other connected devices (such as your VCR).
2. **If you use the supplied cable** as described in "Quick Connection," set the channel selector on your TV to match the setting of the CHAN 3/4 switch on the VIS player.

   For other connections, refer to the instructions provided with the equipment the VIS player is connected to, and follow those instructions to specify the VIS as the input device.
3. Press OPEN/CLOSE to open the CD tray.
4. Insert the CD into the CD tray with its label side up.
5. Press OPEN/CLOSE to close the CD tray. The CD plays automatically.



6. Use the TV controls to adjust the picture and sound.

   Note: If you connect the AUDIO OUT jacks to another device, such as an amplifier/receiver, use the controls for that device to adjust the sound. See "Optional Audio/Video Connections."
7. When using only one wireless hand controller, such as the supplied controller, set the Player Selection Switch to Solo. Otherwise, see "Using Optional Hand Controllers." For additional information about hand controller operation, see "Using the Wireless Hand Controller."

See "Playing an Audio CD" for additional information about playing audio CDs.

Using the Wireless Hand Controller

Use the supplied, wireless hand controller as follows:

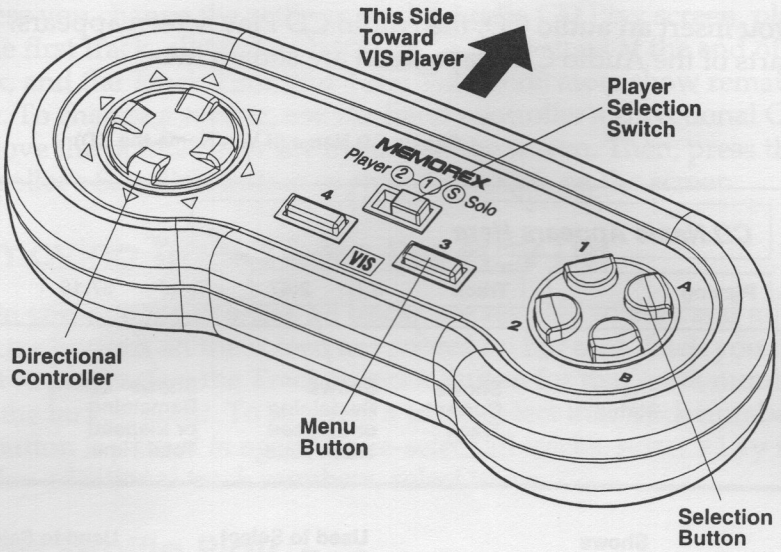
Player Selection Switch — When using only one wireless hand controller, set this switch to Solo. Otherwise, see "Using Optional Hand Controllers."

Selection Button — After moving the pointer to the desired item, press the Selection Button to select the item.

Menu Button — Press this button to display a *menu* (list of options). Not all applications provide a menu.

Directional Controller — Use this control to move the pointer around on the screen.

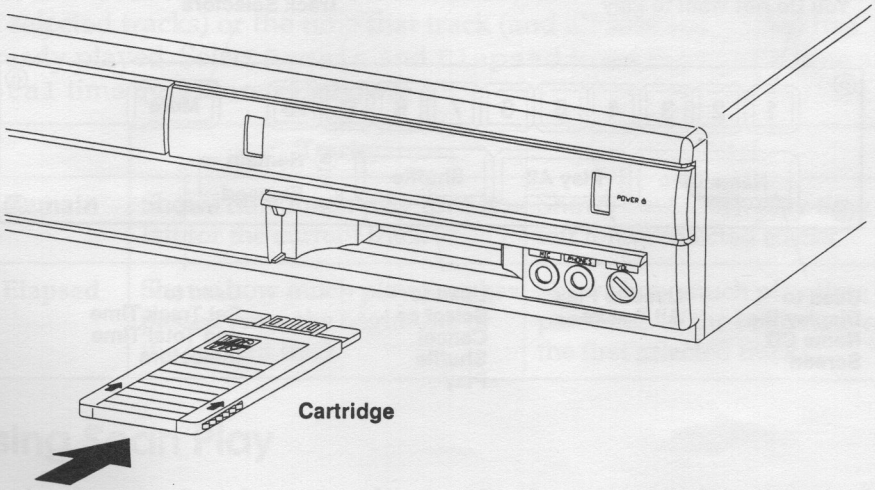
Refer to the documentation provided with each application for information on the use of the remaining buttons.



Using a Cartridge

Some applications use a Save-It cartridge to save settings for later use by that application. For example, the Save-It cartridge *remembers* the tracks you select for an audio CD so that the same tracks are automatically selected the next time you load that CD. Normally, you can use the same Save-It cartridge for several applications. Additional Save-It cartridges (CMC 16-355) are available by special order through your local Radio Shack store.

To load a cartridge, open the front panel door and insert the cartridge as shown.



Cautions:

For best results, insert the Save-It cartridge before you turn on the VIS player. In addition, remove the cartridge or change cartridges only after you turn off the VIS player or as instructed by the application. Removing the cartridge at another time might erase all the information on the cartridge.

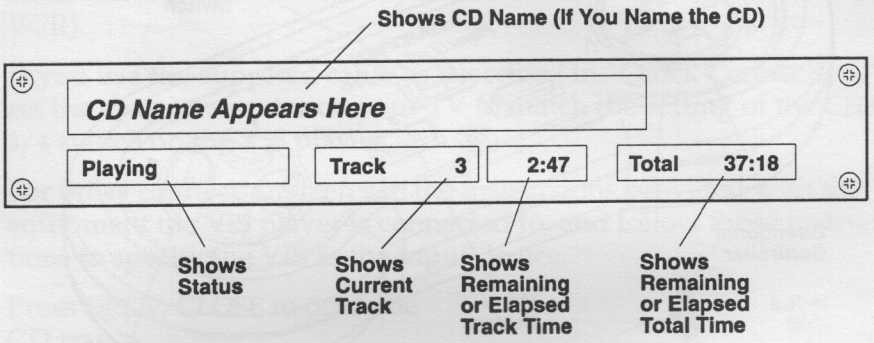
Insert the cartridge with its label side up.

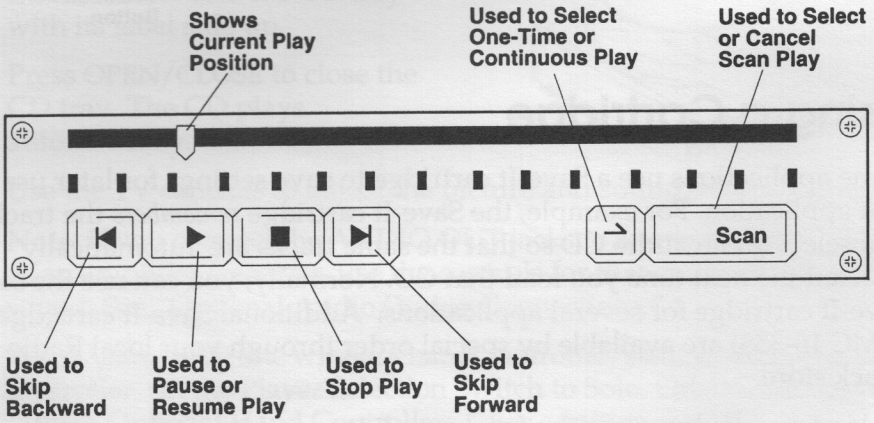
Be sure the cartridge is fully inserted.

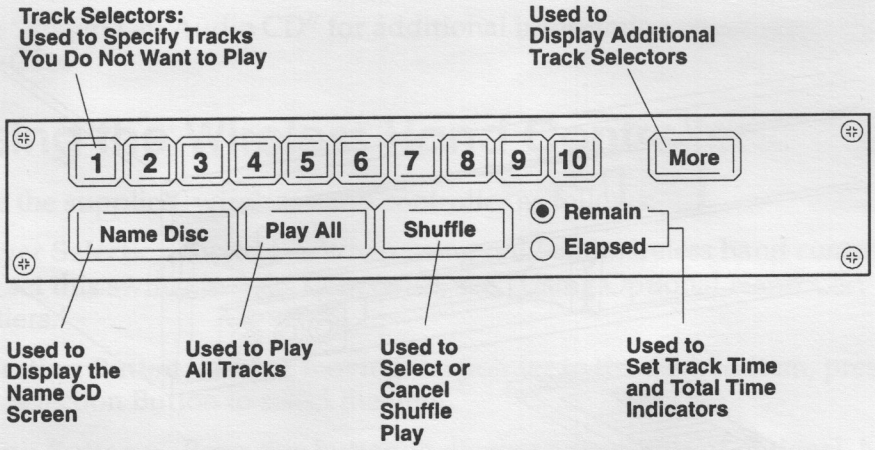
Do not twist the cartridge or use excessive force when inserting it.

Playing an Audio CD

When you insert an audio CD, the Audio CD Play screen appears. The three parts of the Audio CD Play screen are shown here.







Note:

The Play Position indicator shows the current play position relative to the total CD. Each track on the CD is represented by a bar. Wide bars show selected tracks. Thin bars show tracks that have been removed from the play list. The distance between bars shows the relative length of each track.

Changing Screen Settings

Unless you change the settings on the Audio CD Play screen, play begins at the first track, all tracks play in order, play stops at the end of the last track, and the Track Time and Total Time indicators show remaining time. To change a setting, use the hand controller's Directional Controller to move the pointer over the button on the screen. Then, press the hand controller's Selection Button to *press* the button on the screen.

> **Note:**
> *If the Audio CD Play screen still appears when you load a VIS CD, turn the VIS player off and on again.*

Removing Tracks from the Play List

When you first insert a CD, all tracks are selected to play and all Track Selector buttons on the screen are *pressed in*. For each track you **do not** want to play, select the Track Selector button for that track number so that the button is *out*. To re-select a track, select that track number so that the button is *pressed in* again. To re-select all tracks, select `Play All`. To display additional track numbers, select `More`.

Using Shuffle Play

To play all selected tracks in random order, select `Shuffle` so that `Unshuffle` appears. If you later choose to play selected tracks in sequential order, select `Unshuffle` so that `Shuffle` appears.

Naming a CD

If you name a CD, the name you enter appears on the screen. To name a CD, press `Name Disc`. The Name CD screen appears. Use the hand controller to enter the name you want to appear. If you do not enter a CD name, `CD Audio Player` appears in the CD Name field.

Showing Remaining or Elapsed Time

You can choose to see either the remaining time on a track (and total for all selected tracks) or the time that track (and all selected tracks) has already played. Select `Remain` and `Elapsed` to set the `Track` time and `Total` time indicators as follows:

	Track	Total
Remain	Shows how much play time is left for the current track	Shows how much play time is left for all selected tracks
Elapsed	Shows how much play time has passed since the beginning of the current track	Shows how much play time has passed since the beginning of the first selected track

Using Scan Play

To play just the first few seconds of each selected track, select `Scan`. If you hear a track you want to listen to, select `Scan` again to return to normal play.

Saving Audio CD Play Preferences

The VIS is designed to record the following information for each audio CD you play:

- One-Time/Continuous Play setting
- Selected tracks
- Shuffle/Unshuffle setting
- Remaining/Elapsed Time setting
- CD name (if you enter a CD name)

If you save this information on a Save-It cartridge, and the same cartridge is inserted the next time you load the audio CD, the VIS player uses the saved play preference settings.

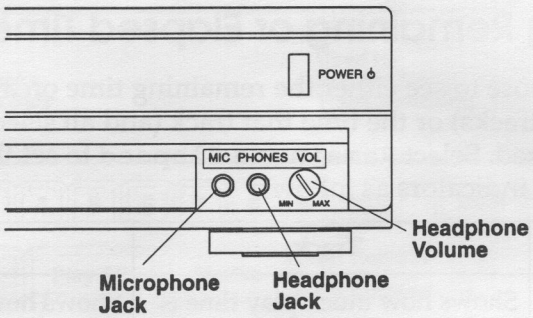
Normally, the VIS updates the Save-It cartridge each time you change any of these settings. However, the first time a Save-It cartridge is used for this purpose, the following message appears:

`Do you want to save the Audio CD Player settings onto this cartridge?`

Select `Yes` to prepare the cartridge for storing play preference settings and to store the current settings. Select `No` to leave the cartridge as it is.

Using Headphones

You can connect stereo headphones with a 1/8-inch plug to the PHONES jack behind the front panel door. Turn VOL to adjust the headphone volume. (The sound continues to play through the speakers.)



Warnings:

Extended high-volume listening can cause permanent hearing loss.

Before you put on headphones, set the volume to its lowest level. After you put on the headphones, slowly adjust the volume to a comfortable listening level.

Over time, your ears become less sensitive to sound. However, volume levels that do not cause discomfort might still damage your hearing. Therefore, do not increase the headphone volume level once you have set it.

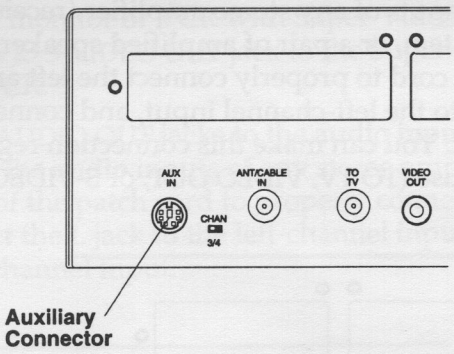
Connecting a Microphone

For applications that use a microphone, connect a mono (monaural) high-impedance microphone with a 1/8-inch plug to the MIC jack behind the front panel door.

Using Optional Hand Controllers

You can purchase a second wireless hand controller (Cat. No. 16-354) from your local Radio Shack store.

You can also purchase a wired hand controller (CMC 16-2014) by special order through your Radio Shack store. Connect a wired hand controller to the AUX IN connector on the back of the VIS player.



Set the hand controller Player Selection Switch(es) as shown in the following table:

Type of Hand Controller(s) Used	Setting for Player Selection Switch(es)
One wireless	Set to Solo.
Two wireless	Set one to Player 1 and the other to Player 2.
One wireless and one wired	Set both to Solo.
One wired	Set to Player 1.

Optional Audio/Video Connections

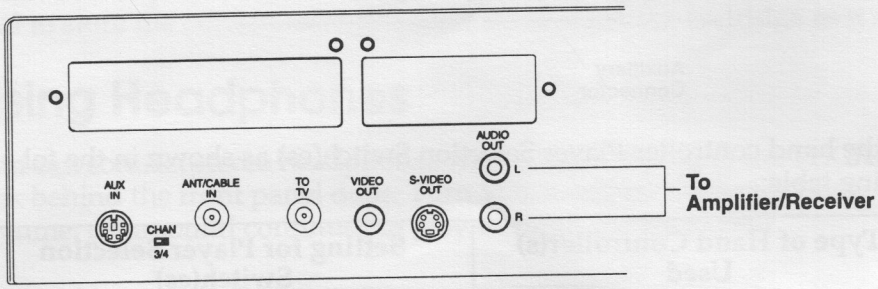
Connection to your TV with the supplied coaxial cable gives you adequate picture and sound. However, the VIS player also allows you to enjoy stereo sound or enhanced video — if you connect the VIS player to audio/video equipment with these capabilities.

To determine the best setup for your home entertainment system, refer to the following information and the owner's manuals for the other devices in your system, and check with your local Radio Shack store. Some installations might require accessories other than those noted here.

For Stereo Sound

> **Note:**
> *We recommend shielded stereo patch cables with gold-plated phono connectors, available at Radio Shack stores.*

For stereo sound, use a stereo patch cable to connect the VIS AUDIO OUT jacks to the audio inputs of any stereo amplifier/receiver, including a stereo TV, a stereo system, or a pair of amplified speakers. Use the color coding of the patch cord to properly connect the left and right channels. Connect the L jack to the left-channel input, and connect the R jack to the right-channel input. You can make this connection regardless of the video connection you use (TO TV, VIDEO OUT, or S-VIDEO OUT).



For Enhanced Video

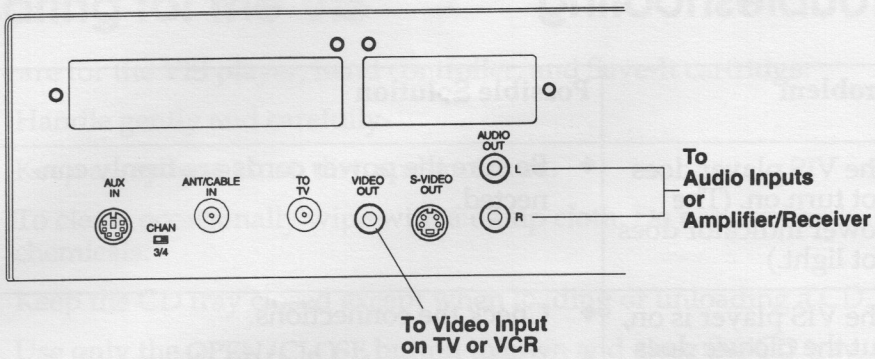
The VIS provides superior video quality when you connect it to a TV/monitor or VCR that has separate audio/video inputs or Super-Video capabilities.

Connecting to a TV/Monitor or to a VCR that has Separate Audio/Video Inputs

> **Note:**
> *Use video-quality shielded cables with phono connectors. We recommend high-grade A/V cables with gold-plated plugs, available at Radio Shack stores.*

If you have a TV/monitor or VCR with separate audio and video inputs, connect the VIS VIDEO OUT jack to the video input of the TV/monitor or VCR.

Connect the VIS AUDIO OUT jacks to the audio inputs of the TV/monitor or the VCR, or to the audio inputs of any stereo amplifier/receiver. Use the color coding of the patch cord to properly connect the left and right channels. Connect the L jack to the left-channel input, and connect the R jack to the right-channel input.

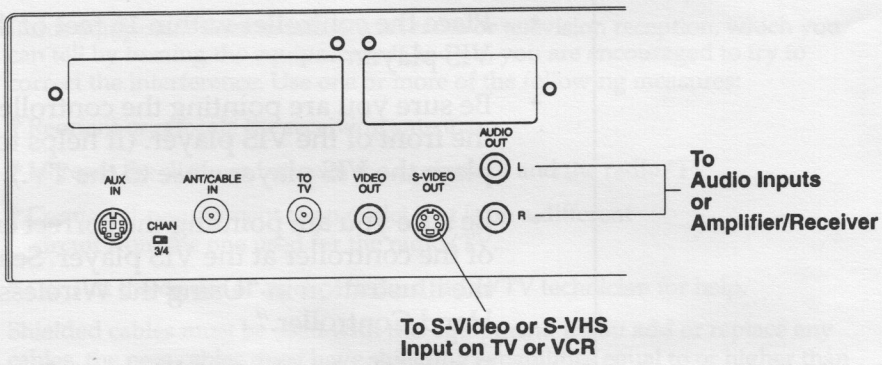


Connecting to a TV or VCR with Super-Video Capabilities

If you have a TV/monitor or VCR with Super-Video (S-Video) capabilities, connect the VIS S-VIDEO OUT jack to the Super-Video input of the TV/monitor or VCR.

Connect the VIS AUDIO OUT jacks to the audio inputs of the TV/monitor or the VCR, or to the audio inputs of any stereo amplifier/receiver. Use the color coding of the patch cord to properly connect the left and right channels. Connect the L jack to the left-channel input, and connect the R jack to the right-channel input.

> ***Note:***
>
> *This connection requires an S-Video cable (CMC 15-1510), available by special order through Radio Shack stores.*



Troubleshooting

Problem	Possible Solution
The VIS player does not turn on. (The power indicator does not light.)	◆ Be sure the power cords are firmly connected.
The VIS player is on, but the picture does not appear.	◆ Check the connections. ◆ If you connected the VIS player with the supplied coaxial cable, be sure the VIS player and the TV are set to the same channel.
The CD does not play.	◆ Be sure the CD has the VIS logo or the audio CD logo, as shown in "Basic Operation." ◆ Be sure the CD is inserted label side up.
The VIS player does not respond to the hand controller.	◆ Check the setting of the Player Selection switch(es). Refer to the table in "Using Optional Hand Controllers." ◆ When using a wireless controller (such as the supplied controller): • Place the controller within 16 feet of the VIS player. • Be sure you are pointing the controller at the front of the VIS player. (It helps to place the VIS player close to the TV.) • Be sure you are pointing the correct end of the controller at the VIS player. See the illustration in "Using the Wireless Hand Controller." • Be sure the hand controller batteries are the correct size and type, and check the polarity (+ and –). • Replace the hand controller batteries.

Caring for CDs

To care for CDs:

- Touch CDs by the edges only.
- Keep CDs away from heat, moisture, and dirt.
- Return CDs to their cases when not using them.
- Clean CDs with a soft, dry, lint-free cloth.
- Do not write on CDs.

Caring for the VIS

To care for the VIS player, hand controller, and Save-It cartridge:

- Handle gently and carefully.
- Keep away from dust, dirt, and moisture.
- To clean, occasionally wipe with a damp cloth. Do not use harsh chemicals.
- Keep the CD tray closed except when loading or unloading a CD.
- Use only the OPEN/CLOSE button to open and close the CD tray. Do not pull on or push on the CD tray.
- Do not place objects on top of the hand controller. This can cause the buttons to be held down, which reduces battery life.

For Your Records

We recommend you record the serial number of your VIS player in the space provided. The serial number is on the back of the VIS player.

Serial Number:

The FCC wants you to know . . .

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of *FCC Rules*. These limits are designed to provide reasonable protection against harmful radio and TV interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed in accordance with the instructions, may cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular installation.

If this equipment does interfere with radio or television reception, which you can tell by turning the equipment off and on, you are encouraged to try to correct the interference. Use one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and the radio/TV.
- Connect the equipment to an outlet that is on a different circuit from the one used for the radio/TV.
- Consult the dealer or an experienced radio/TV technician for help.

Shielded cables must be used with this equipment. If you add or replace any cables, the new cables must have shielding capabilities equal to or higher than those provided by the dealer. Modifying or tampering with internal components can cause a malfunction and might invalidate the warranty and void your FCC authorization to operate this equipment.

The DOC wants you to know...

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le Ministère des Communications du Canada vous informe que . . .

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Class B prescrites dans le Réglement sur le brouillage radioélectrique édicté par le Ministère des Communications du Canada.

Specifications

System

Dimensions	3.7 x 14.9 x 13.5 in (9.4 x 37.8 x 34.3 cm) (HxWxD)
Weight	12 lbs. (5.44 kg)
Operating temperature	10° F to 95° F (-12° C to 35° C)
Operating humidity	20% to 80% non-condensing
Power requirement	120 VAC
Power consumption	40 watts (max.)
Usable discs	VIS or audio CD

Audio

CD Player Application

(measured at 0 dB, 1000 Hz using A-BEX 781 test CD)

Line output	1.8 VRMS into 10,000 ohms
Connector	2 phono
THD + noise	0.10% max.
Channel separation	60 dB min.
Channel balance	1.0 dB max.
Dynamic range	80 dB min.
Headphone output	25mW nominal into 32 ohms

Microphone

Connector	1/8-inch, monophonic
Input level	–52 dBv min.
AGC range	40 dB min.
Input impedance	2,000 ohms min.
THD + noise (line out)	0.5% max. at 1000 Hz

Music Synthesizer

Synthesis type	FM with 2 or 4 operators
Number of voices	18 max.
MIDI channels	1 to 16 with drums mapped to 10 or 16
MIDI map	General MIDI mode, 128 timbres plus drum kit

Video

(all measurements into 75-ohm termination)

Video output	RF modulated, composite, S-Video
Composite output	1 volt peak to peak
RF output	69 dBμ max.
Channels	3 or 4, switch-selectable
S-Video output	Luminance 1 volt peak to peak, Chrominance 890 mV peak to peak

RADIO SHACK
A Division of Tandy Corporation
Fort Worth, Texas 76102

9/92-SWCG 87491068 Printed in U.S.A.